

Serial No. 09/991,466  
Reply to Office Action of August 5, 2004

**Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the application:

**Listing of Claims:**

Claims 1-3 (Canceled)

4. (currently amended) A method of chemical-mechanical polishing for forming a shallow trench isolation, wherein a substrate having a plurality of active regions, including a large active region and a small active region, is provided, comprising:
  - forming a silicon nitride layer on the substrate;
  - forming a shallow trench between the active regions;
  - forming an oxide layer over the substrate, so that the shallow trench is filled therewith;
  - removing a rectangular-profiled portion of the oxide layer on a central part of the large active region, whereas the oxide layer remains on an edge part of the large active region and on the small active region having a substantially uniform maximum thickness; and
  - planarizing the remaining oxide layer until the oxide layer within the shallow trench has substantially the same level as the silicon nitride layer.
5. (original) The method according to claim 4, wherein the oxide layer is formed by high density chemical vapor deposition.
6. (original) The method according to claim 4, wherein a partial reverse active mask is formed to etch the central part of the oxide layer on the active region.

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7. (original) The method according to claim 4, wherein the oxide layer is planarized by chemical-mechanical polishing.
8. (currently amended) A method of chemical-mechanical polishing for forming a shallow trench isolation, wherein a substrate having a plurality of active regions, including a large active region and a small active region, is provided, comprising:
  - forming a silicon nitride layer on the substrate;
  - forming a shallow trench between the active regions;
  - forming an oxide layer over the substrate, so that the shallow trench is filled therewith;
  - forming a partial reverse active mask on the oxide layer, whereas the oxide layer on an edge part of the large active region and on the small active region are covered by the partial reverse active mask;
  - etching a rectangular-profiled portion of the oxide layer, using the partial reverse active mask as a mask such that the oxide layer has a substantially uniform maximum thickness; and
  - planarizing the oxide layer until the oxide layer within the shallow trench has substantially the same level as the silicon nitride layer.
9. (original) The method according to claim 8, wherein the oxide layer is formed by high density chemical vapor deposition.
10. (original) The method according to claim 8, wherein the oxide layer is planarized by chemical-mechanical polishing.
11. (new) The method of claim 4, wherein the rectangular-profiled portion of the oxide layer is removed prior to any further deposition of material on the oxide layer.

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12. (new) The method of claim 4, wherein a chemical-mechanical polishing step is performed immediately after the rectangular-profiled portion of the oxide layer is removed.
13. (new) The method of claim 4, wherein the oxide layer remaining on the edge part of the large active region is laterally smaller than the small active region.
14. (new) The method of claim 8, wherein the rectangular-profiled portion of the oxide layer is removed prior to any further deposition of material on the oxide layer.
15. (new) The method of claim 8, wherein a chemical-mechanical polishing step is performed immediately after the rectangular-profiled portion of the oxide layer is removed.
16. (new) The method of claim 8, wherein the oxide layer remaining on the edge part of the large active region is laterally smaller than the small active region.